HEATH HG-10B VFO

instructions

FOR THE

HEATHKIT

HEATHKIT MICROPHONE

Model HDP-21A

INTRODUCTION

The HEATHKIT Model HDP-21A Microphone is attractively styled and well constructed.

Its frequency response is especially recommended for voice communications with Heathkit SSB Amateur Radio equipment.

FEATURES

Optimum Frequency Response..... Choice Of Switching Configurations.....Locking Button On Press-To-Talk Lever.....Strong Chrome Plated Die-Cast Zinc.

SPECIFICATIONS

Type	Dynamic, high impedance.
Frequency Response	70 Hz to 10 kHz.
Output	57 db below 1 volt per microbar.
Load Impedance	100 KΩ, minimum.
Maximum Switch Current	1 ampere.
Maximum Switch Voltage	125 volts AC or DC.
Material	Die-cast zinc and plastic.
Finish	Satin chrome and gray.
Dimensions	10" high x 5-1/8" base diameter.
Net Weight	1-3/4 lbs.

PRINTED IN U. S. A.

7-25-69

STEP-BY-STEP INSTRUCTIONS

NOTE: The following wiring instructions are for standard VOX and push-to-talk operation, as would be used in all HEATHKIT HW Series Transceivers and SB Series Transceivers and Transmitters. If another type of wiring is required, refer to the Switch Explanation section and Figure 6.

Refer to Figure 1 for the following steps.

( ) Screw the BASE onto the end of the SWITCH RISER opposite the ADJUSTABLE COLLET.

( ) Screw the MICROPHONE onto the top of the SWITCH RISER. Be careful not to strip the threads.

( ) Remove the SWITCH COVER by removing the two Phillips head screws from the back of the SWITCH RISER.

( ) Remove the CABLE CLAMPS from the SWITCH RISER.

( ) Locate the short length of shielded cable. Then prepare both ends and install the microphone connector. Refer to Figure 2.

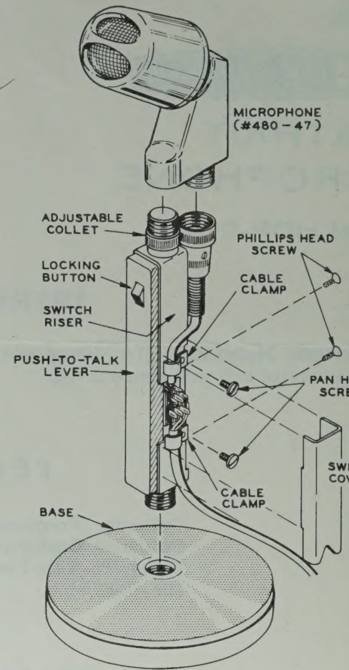
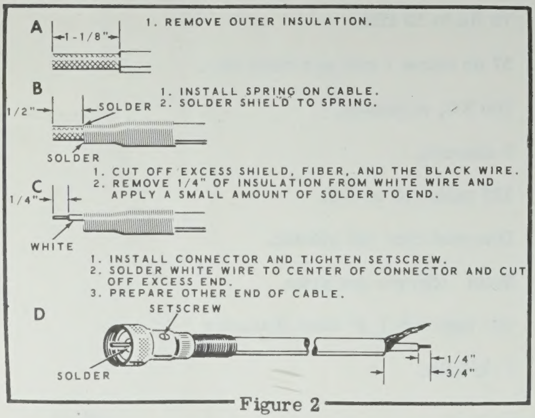


Figure 1

( ) Screw the microphone connector onto the Microphone.

( ) Locate the length of 3-wire cable and prepare one end as shown in Figure 3.



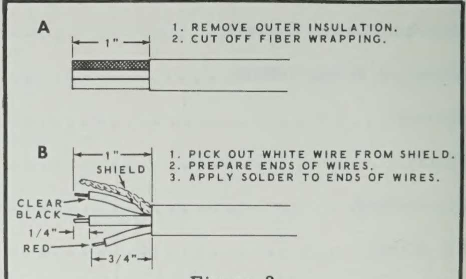
A
1. REMOVE OUTER INSULATION.

B
1. INSTALL SPRING ON CABLE.
2. SOLDER SHIELD TO SPRING.

C
1. CUT OFF EXCESS SHIELD, FIBER, AND THE BLACK WIRE.
2. REMOVE 1/4" OF INSULATION FROM WHITE WIRE AND APPLY A SMALL AMOUNT OF SOLDER TO END.

D
1. INSTALL CONNECTOR AND TIGHTEN SETSCREW.
2. SOLDER WHITE WIRE TO CENTER OF CONNECTOR AND CUT OFF EXCESS END.
3. PREPARE OTHER END OF CABLE.

Figure 2



A
1. REMOVE OUTER INSULATION.
2. CUT OFF FIBER WRAPPING.

B
1. PICK OUT WHITE WIRE FROM SHIELD.
2. PREPARE ENDS OF WIRES.
3. APPLY SOLDER TO ENDS OF WIRES.

Figure 3

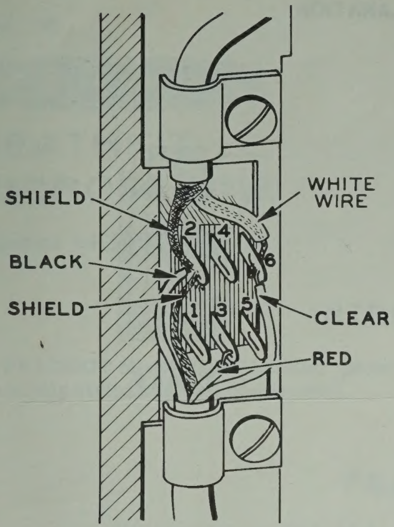


Figure 4

Refer to Figure 4 for the following steps.

Connect the cable coming from the microphone connector to the switch as follows:

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( ) Connect the white wire to lug 6. Do not solder.

Connect the 3-wire cable to the switch as follows:

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( ) Position the cables as shown and mount the two CABLE CLAMPS.

( ) Mount the SWITCH COVER with the Phillips head screws.

( ) Cut the 3-wire cable to the correct length for your installation.

( ) Prepare the free end of the 3-wire cable to fit the connector to be used with your equipment. A two or more pin connector is required. Refer to the wiring diagram of your equipment for proper terminations at the connector.

( ) Connect the red wire to the control circuit pin of the cable connector as shown in Figure 5. Solder.

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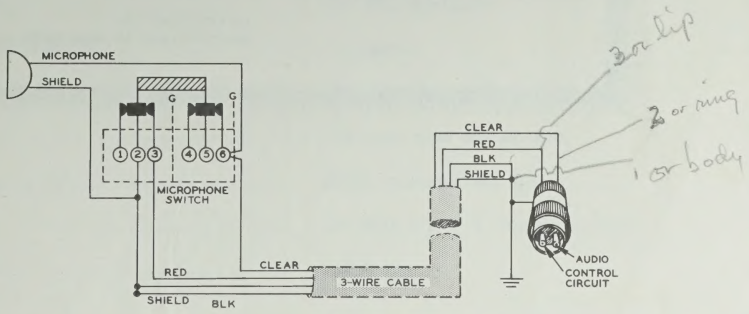

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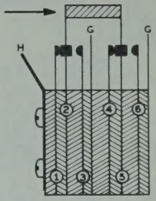

Figure 6

WARRANTY

The Heath Company warrants parts in its kits for 90 days after shipment. Under this warranty, we will exchange any defective part returned prepaid within the 90 days. If a part is defective, its replacement is shipped prepaid by us anywhere in the continental United States or to APO and FPO addresses. Shipments to all other areas are FOB factory. Heath's obligation is limited to such replacement or repair by Heath, and Heath is not responsible under this warranty or otherwise for any consequential damage or other loss in connection with the purchase, assembly, or use of the kit or parts. Use the Parts Order Form in the kit to notify us of the defective part and return instructions will be sent to you, or contact any Heathkit Electronic Center.

Questions relating to repairs or warranty replacement in the continental United States (APO and FPO included) should be addressed to Heath Company, attention: Customer Relations, or the nearest Heathkit Electronic Center. In all other areas please contact the authorized Heathkit representative in your country, or Heath Company, attention: International Division.

HEATH COMPANY
Benton Harbor, Michigan 49022

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(✓) Screw the MICROPHONE onto the top of the SWITCH RISER. Be careful not to strip the threads.

(✓) Remove the SWITCH COVER by removing the two Phillips head screws from the back of the SWITCH RISER.

(✓) Remove the CABLE CLAMPS from the SWITCH RISER.

(✓) Locate the short length of shielded cable. Then prepare both ends and install the microphone connector. Refer to Figure 2.

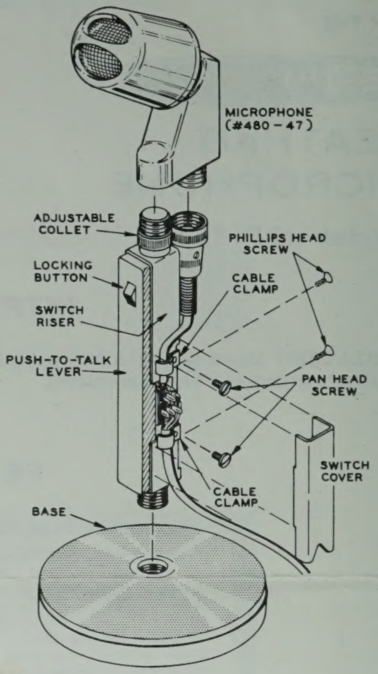

Figure 1

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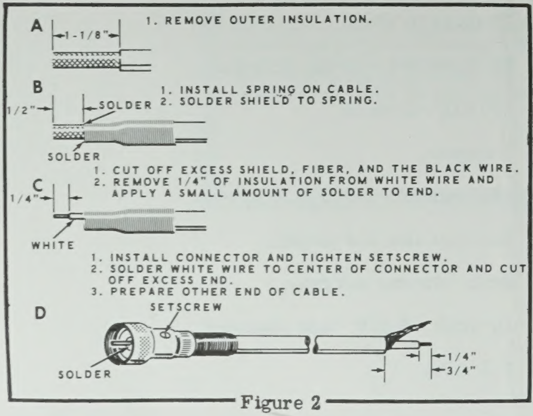
A
1-1/8"
1. REMOVE OUTER INSULATION.
B
1/2"
SOLDER
1. INSTALL SPRING ON CABLE.
2. SOLDER SHIELD TO SPRING.
SOLDER
1. CUT OFF EXCESS SHIELD, FIBER, AND THE BLACK WIRE.
2. REMOVE 1/4" OF INSULATION FROM WHITE WIRE AND APPLY A SMALL AMOUNT OF SOLDER TO END.
C
1/4"
WHITE
1. INSTALL CONNECTOR AND TIGHTEN SETSCREW.
2. SOLDER WHITE WIRE TO CENTER OF CONNECTOR AND CUT OFF EXCESS END.
3. PREPARE OTHER END OF CABLE.
D
SETSCREW
SOLDER
1/4"
3/4"

Figure 2

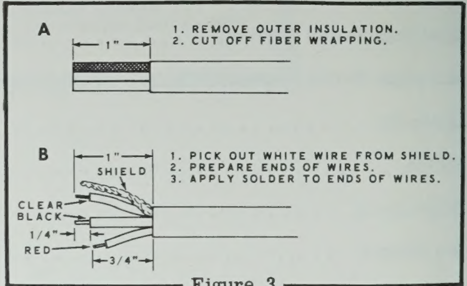
A
1"
1. REMOVE OUTER INSULATION.
2. CUT OFF FIBER WRAPPING.
B
1"
SHIELD
1. PICK OUT WHITE WIRE FROM SHIELD.
2. PREPARE ENDS OF WIRES.
3. APPLY SOLDER TO ENDS OF WIRES.
CLEAR
BLACK
1/4"
RED
3/4"

Figure 3

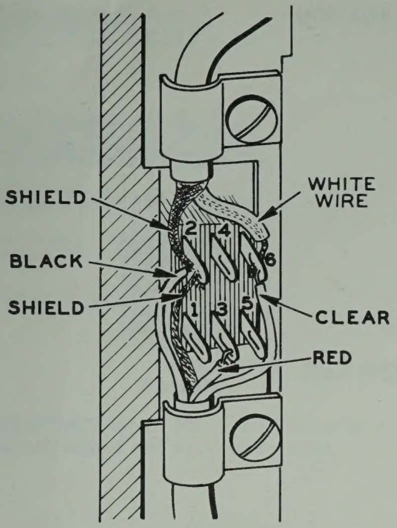

Figure 4

Refer to Figure 4 for the following steps.

Connect the cable coming from the microphone connector to the switch as follows:

(✓) Connect the shield to lug 2. Do not solder.

(✓) Connect the white wire to lug 6. Do not solder.

Connect the 3-wire cable to the switch as follows:

( ) Connect the shield to lug 2. Do not solder.

( ) Connect the black wire to lug 2. Solder all three connections.

( ) Connect the red wire to lug 3. Solder.

( ) Connect the clear wire to lug 6. Solder both connections.

( ) Position the cables as shown and mount the two CABLE CLAMPS.

( ) Mount the SWITCH COVER with the Phillips head screws.

( ) Cut the 3-wire cable to the correct length for your installation.

( ) Prepare the free end of the 3-wire cable to fit the connector to be used with your equipment. A two or more pin connector is required. Refer to the wiring diagram of your equipment for proper terminations at the connector.

( ) Connect the red wire to the control circuit pin of the cable connector as shown in Figure 5. Solder.

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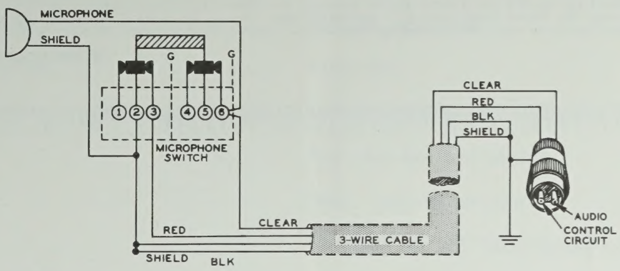

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Figure 6 shows the contact arrangement of the switch used in the Microphone. For switching requirements other than previously given, the following explanation should be helpful.

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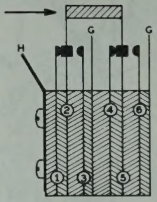

Figure 6

WARRANTY

The Heath Company warrants that the parts supplied in its kits (except batteries) shall be free of defects in materials and workmanship under normal conditions of use and service. The obligation of Heath under this warranty is limited to replacing or repairing any such part upon verification that it is defective in this manner. This obligation is further limited to such defective parts for which Heath is notified of the defect within a period of ninety (90) days from the original date of shipment of the kit.

The obligation of Heath under this warranty does not include either the furnishing or the expense of any labor in connection with the installation of such repaired or replacement parts. The obligation of Heath with respect to transportation expenses is limited to the cost of shipping the repaired or replacement parts to the buyer, provided such repair or replacement comes within the terms of this warranty.

The foregoing warranty extends only to the original buyer and is expressly in lieu of all other warranties, expressed or implied. The foregoing warranty is further in lieu of all other obligations or liabilities on the part of Heath and in no event shall the Heath Company be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, assembly or use of the kit product or components thereof.

The foregoing warranty shall be deemed completely void if acid core solder or paste flux or other corrosive solders or fluxes have been used in assembling or repairing the kit product. Heath will not replace or repair any parts of any kit products in which such corrosive solders or fluxes have been used.

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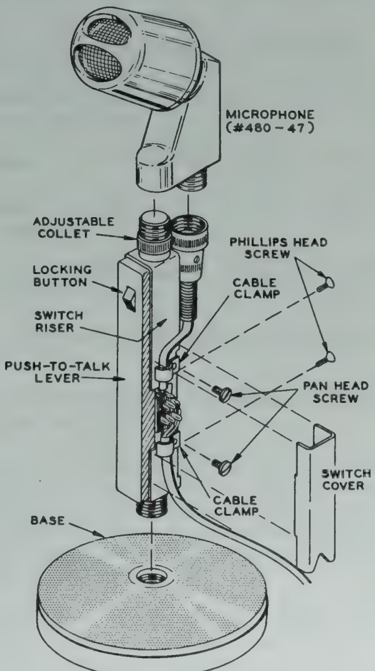
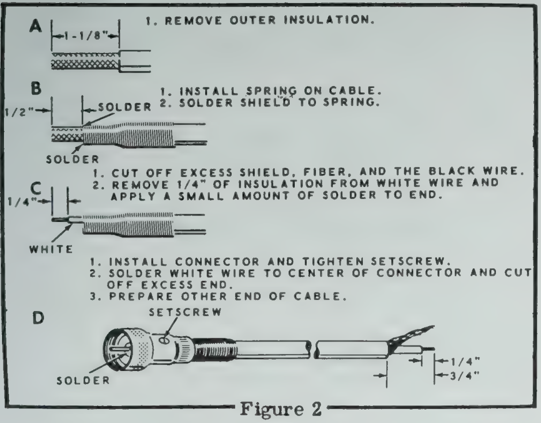


Figure 1



A
1. REMOVE OUTER INSULATION.

B
1. INSTALL SPRING ON CABLE.
2. SOLDER SHIELD TO SPRING.

C
1. CUT OFF EXCESS SHIELD, FIBER, AND THE BLACK WIRE.
2. REMOVE 1/4" OF INSULATION FROM WHITE WIRE AND APPLY A SMALL AMOUNT OF SOLDER TO END.

D
1. INSTALL CONNECTOR AND TIGHTEN SETSCREW.
2. SOLDER WHITE WIRE TO CENTER OF CONNECTOR AND CUT OFF EXCESS END.
3. PREPARE OTHER END OF CABLE.

Figure 2

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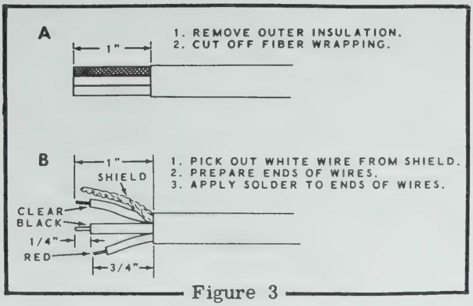

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1. REMOVE OUTER INSULATION.
2. CUT OFF FIBER WRAPPING.

B
1. PICK OUT WHITE WIRE FROM SHIELD.
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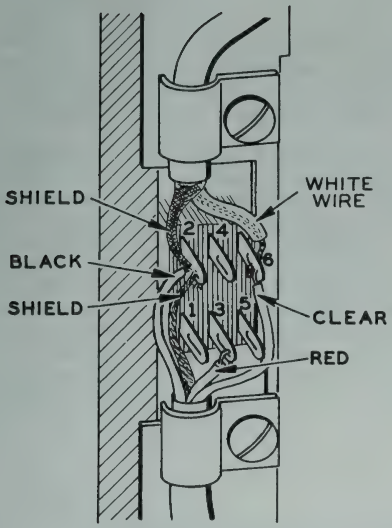
Figure 3



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Refer to Figure 4 for the following steps.

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( ) Mount the SWITCH COVER with the Phillips head screws.

( ) Cut the 3-wire cable to the correct length for your installation.

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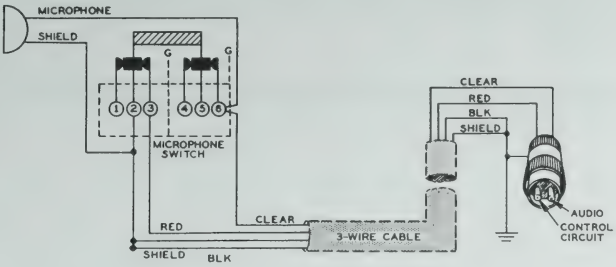

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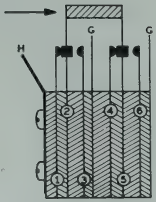

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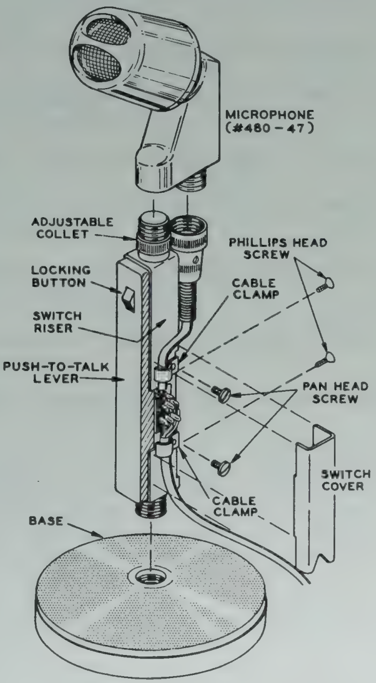

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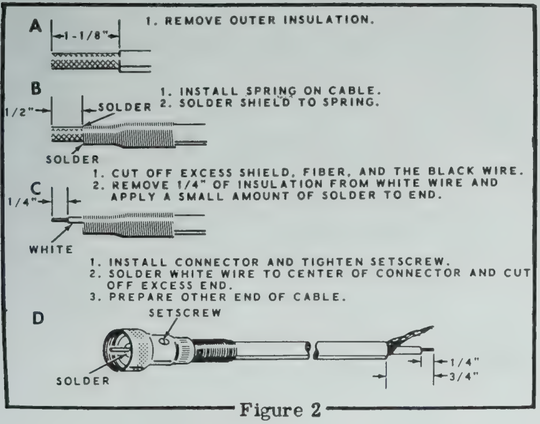

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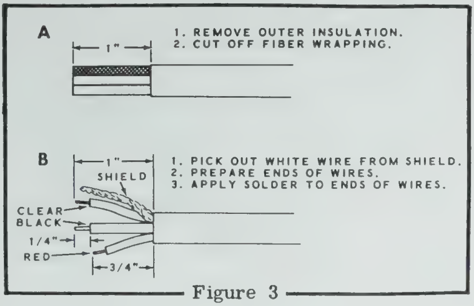

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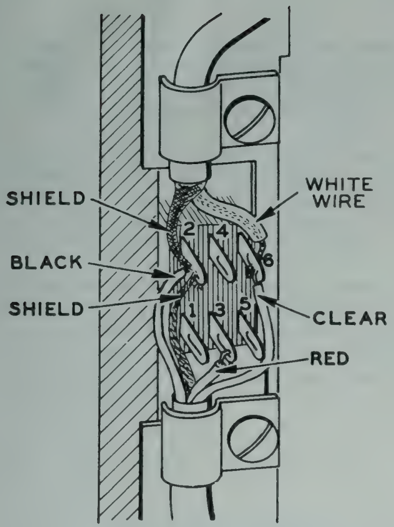

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(✓) Connect the shield to lug 2. Do not solder.

(✓) Connect the white wire to lug 6. Do not solder.

Connect the 3-wire cable to the switch as follows:

( ) Connect the shield to lug 2. Do not solder.

( ) Connect the black wire to lug 2. Solder all three connections.

( ) Connect the red wire to lug 3. Solder.

( ) Connect the clear wire to lug 6. Solder both connections.

( ) Position the cables as shown and mount the two CABLE CLAMPS.

( ) Mount the SWITCH COVER with the Phillips head screws.

( ) Cut the 3-wire cable to the correct length for your installation.

( ) Prepare the free end of the 3-wire cable to fit the connector to be used with your equipment. A two or more pin connector is required. Refer to the wiring diagram of your equipment for proper terminations at the connector.

( ) Connect the red wire to the control circuit pin of the cable connector as shown in Figure 5. Solder.

( ) Connect the clear wire to the audio pin of the cable connector as shown in Figure 5. Solder.

( ) Connect the black wire and the shield together, and fold them back along the outside (spring) of the connector.

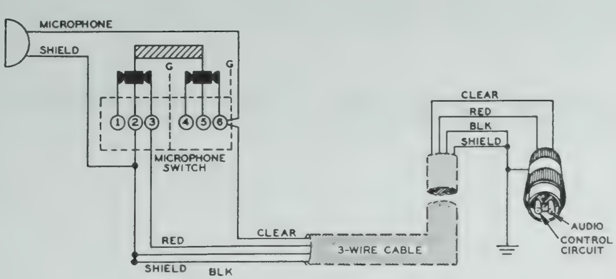

Figure 5

SWITCH EXPLANATION

Figure 6 shows the contact arrangement of the switch used in the Microphone. For switching requirements other than previously given, the following explanation should be helpful.

Contacts 1 and 2 break before 4 and 5 break.
Contacts 4 and 5 break before 2 and 3 make.
Contacts 2 and 3 make before 5 and 6 make.
At G are the contact insulators, and at H is the push-to-talk lever return spring.

If the switch is to be used to operate a relay, be sure to check the Specifications for the maximum current rating of the contacts. It is recommended that wires used to carry high voltage or high current be run separate from the microphone cable.

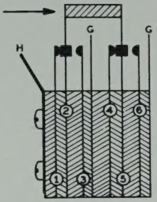

Figure 6

WARRANTY

The Heath Company warrants that the parts supplied in its kits (except batteries) shall be free of defects in materials and workmanship under normal conditions of use and service. The obligation of Heath under this warranty is limited to replacing or repairing any such part upon verification that it is defective in this manner. This obligation is further limited to such defective parts for which Heath is notified of the defect within a period of ninety (90) days from the original date of shipment of the kit.

The obligation of Heath under this warranty does not include either the furnishing or the expense of any labor in connection with the installation of such repaired or replacement parts. The obligation of Heath with respect to transportation expenses is limited to the cost of shipping the repaired or replacement parts to the buyer, provided such repair or replacement comes within the terms of this warranty.

The foregoing warranty extends only to the original buyer and is expressly in lieu of all other warranties, expressed or implied. The foregoing warranty is further in lieu of all other obligations or liabilities on the part of Heath and in no event shall the Heath Company be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, assembly or use of the kit product or components thereof.

The foregoing warranty shall be deemed completely void if acid core solder or paste flux or other corrosive solders or fluxes have been used in assembling or repairing the kit product. Heath will not replace or repair any parts of any kit products in which such corrosive solders or fluxes have been used.

This warranty applies only to Heath products sold and shipped to points within the continental United States and to APO and FPO shipments. Warranty replacement for Heath products sold or shipped outside the United States is on an f.o.b. factory basis. Contact the Heath authorized distributor in your country or write: Heath Company, International Division, Benton Harbor, Michigan, U.S.A.

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